

ECONOMIC LIFE

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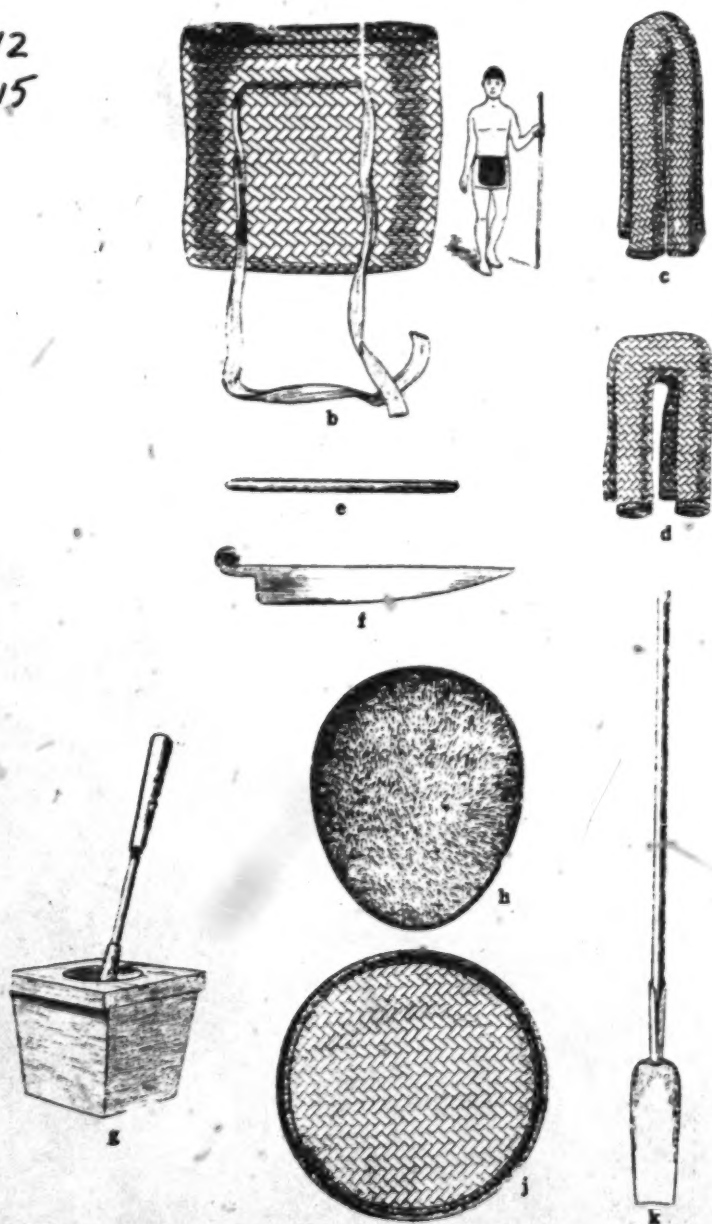


FIG. 1. Cultivation and Preparation of Rice. a, Dibble; b, Sowing Basket; c, d, Baskets for Bean Seed; e, Flail; f, Reaping Knife; g, Mortar and Pestle; h, j, Winnowing Trays; k, Spade.

782 Brockway¹ says: "At planting time the Tanala [Menabe] kill oxen. . . . What is killed, with a considerable quantity of *toaka* [rum] is laid upon altars in the fields: as an offering to their ancestors. . . . The altar stones on which the offerings are made are a curiosity and I have seen them nowhere else in Madagascar." The "altar stones," which he describes, are evidently memorial stones of the usual Tanala form and he probably mistook a special for a general practice. Sacrifices are necessary when crops are planted in a *zintana* (place belonging to the ancestral spirits, see p. 168) but not for ordinary planting.

241 After the *tavy* has been burned, little or no attempt is made to prepare the field further. At most, piles of ashes left by large trees will be leveled and some of the ash carried and spread on bare spots. [412] The planting is done with a dibble of hard wood 4 to 5 feet long and about 1½ inches in diameter (Fig. 1, a). One informant said that the point must always be made from the root end of the sapling, as otherwise the plants would not grow strong and erect. Holes are punched in the soil to a depth of 3 or 4 inches, the seed dropped in and covered with the foot. There is no attempt to plant in regular rows. Seeds of all sorts are carried mixed together in a deep, narrow basket which is slung from the waist in front or on the right side (Fig. 1, b). Among the Menabe, at least, seeds of several sorts are often planted in the same hole. The planting is usually done by men, but the women often assist.

412
241 Aside from the dibble just described, the only Tanala agricultural implement is the spade. This has an iron blade 1 foot to 18 inches long and 4 or 5 inches wide. The blade is flat or slightly concave and the cutting edge straight. At the top there is a rounded shoulder and a deep socket for the insertion of a handle (Fig. 1, k). The handle is straight and about 5 feet long and is made from hard, heavy wood. The shoulder of the spade is too narrow to be used as a step in forcing it into the ground. It is swung with both hands, driven into the ground, and a piece of earth levered out.

Tanala spades are identical with those of the neighboring plateau tribes and nearly all of them are imported from that region. Among the groups which live exclusively by *tavy* agriculture they are little used and I found that many families did not own one. Their main use is in the construction of terraces and in the preparation of the earth before planting wet rice and I suspect that many of the gentes did not use them in ancient times. Hoes are unknown in Madagascar.

¹Brockway, T. A., *A Visit to Ambohimanga in the Tanala Country*, Antananarivo Annual, 2nd Ed., No. 2, p. 181.

ECONOMIC LIFE

45

in use: a stiff, rectangular piece of matting about 2 feet square, a large, circular tray of basketry with a wooden rim, and a circular tray of light wood (Fig. 1, h, j). Thrashing and winnowing are usually done by women. 243

After winnowing, the dark skin of the rice grains is removed by pounding in a mortar with a pestle. This is woman's work, although men and boys sometimes assist. The pestles are made from a variety of hard, heavy woods and are finely shaped and finished (Fig. 1, g). They are 4 to 5 feet long and 3 to 3½ inches in diameter at the ends, tapering to a smooth central grip about 18 inches long and 1½ to 2 inches in diameter. A good pestle balances exactly in the center. The two ends are used interchangeably. Three types of mortar are in use. The oldest, now employed only as a makeshift, is made by digging a hole in hard ground and lining it with a smooth coat of clay. A fire is then kindled in it and the clay burned hard. Stone mortars are known, but no specimens were seen and I could learn nothing concerning their form or manufacture. 252 412

The ordinary mortar is of wood, with an oblong top and truncated pyramidal base (Fig. 1, g). Although not set in the ground, it is so heavy that it is rarely moved. In some villages I saw the mortars for an entire lineage set up together under an open roof, with the pestles leaning against a bar beside them. Although the mortars seemed to be used indiscriminately, pestles are strictly personal property. They are made for the women by their husbands and a woman will resent another's using her pestle without permission. Each woman usually does her rice pounding alone, but occasionally two people will pound together, striking into the mortar alternately, in perfect time. This seems to be commoner with half-grown boys and girls than with adults. [422]

When a great deal of rice is being pounded at one time, a stiff sleeve of matting, like a basket without a bottom, is set on top of the mortar. It is not attached to the mortar and is not used at ordinary times.

After pounding, the rice is winnowed again, to remove all hulls and dust. That used at ordinary times is rarely pounded to complete whiteness. Even the best is not polished. The grain is prepared a little at a time, as needed for cooking. 252

Among most of the Menabes cultivation of dry rice by the tary method is certainly older than the cultivation of wet rice. This probably holds for the Ikongo as well. Most of the Menabe have 243

ECONOMIC LIFE

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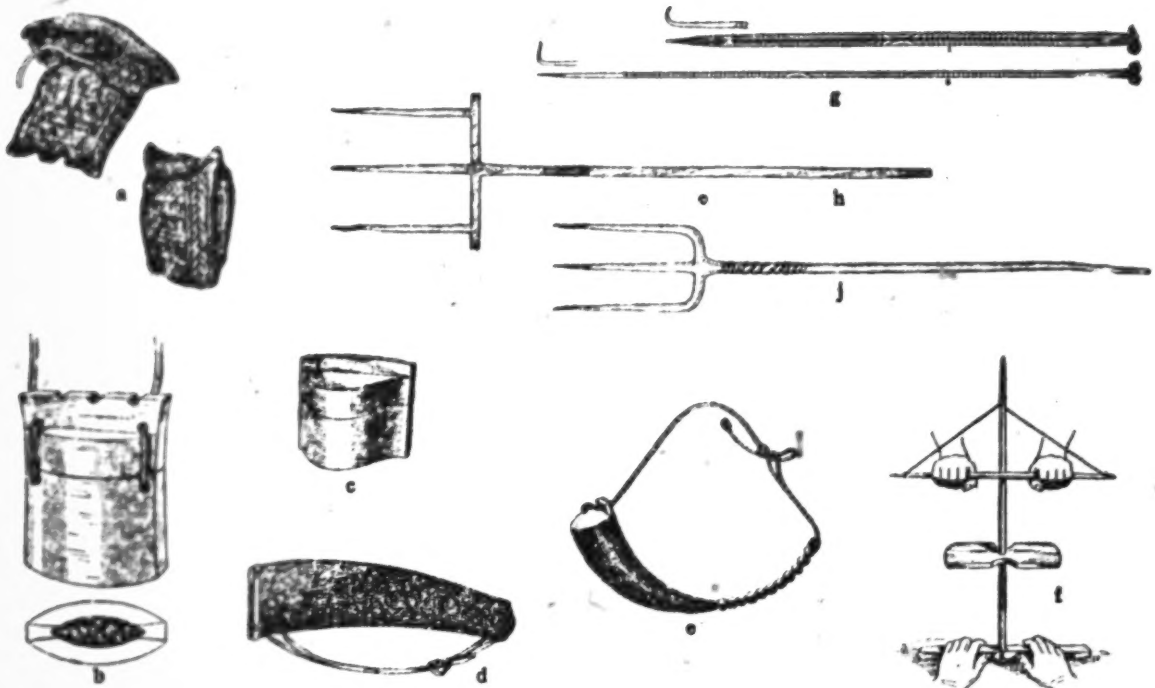


FIG. 8. Tinder Boxes, Meat Hooks and Toasting Forks. a, Rawhide Tinder Box; b, c, Wooden Tinder Boxes; d, Belt Tinder Box; e, Horn Tinder Box; f, Pump Fire Drill; g, Meat Hooks; h, j, Toasting Forks.

415 are nearly 3 feet long. At the present time, families often have one or two wooden bowls, but these have mostly been gotten in trade. White enamel ware and metal spoons are just beginning to come into common use.

The Zafimaniry do not use mats for serving rice and have no leaf dishes or spoons. Small, finely woven baskets are sometimes used for individual servings of rice, but this is not common. All food is regularly served in wooden bowls or platters. These vary considerably in size and depth and may be either round or oval (Fig. 7, e, f, g, h). Bowls sometimes have a low base. In several specimens there is a small lug protruding from one side, just below the rim. A loop of cord is passed through this and the bowl is hung up by it when not in use. Oblong bowls or platters, with four short legs, are used for cutting up and serving meat (Fig. 8, a, b).

412 One of the most characteristic Zafimaniry utensils is that used for grating ginger root. It is long and narrow, with four short legs and a spout (Fig. 8, d). In the center of the bottom, a number of [53] small bone studs are set in the form of a rosette. The shape is said to represent a crocodile, but none of my informants knew the significance of this. The ginger graters are used in preparing some kinds of medicine.

415 Two unique specimens were collected: a small platter with a design carved on the bottom in relief (Fig. 8, c), and a small, finely [53] made bowl with a close-fitting cover and cords for suspension. The latter was used as a trinket box (Fig. 8, e).

The Zafimaniry use small wooden spoons. The shape is much like that of European ones, except for the decorative handle (Fig. 7, a, b, c). Horn and bone spoons seem to be unknown, although they are commonly used by the Betsileo.

[32] The horns of cattle are used as drinking and libation cups. The finest, used in ceremonies, are nearly 2 feet long. The horns are scraped and polished and their tips are sometimes carved into simple forms. One specimen, used as a libation horn, has a design of small circles incised a short distance below the rim (Fig. 9, a, b).

All the Tanala use sections of large bamboo, from 6 to 10 feet long, as water bottles. The septa are burned out with a hot iron. The open end of the bottle is usually cut at an angle, so as to form a sort of spout. The bottle is usually kept leaning against the wall in a corner of the house. When water is needed, one person tilts it while another holds a bowl below.

CUSTOMS IN EATING

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[512] The Tanala family rises at dawn and goes to work at once, to take advantage of the morning coolness. If any food is left from the previous night's meal, there will be a cold breakfast, but no cooking is done at this time. The first regular meal is served a little before noon and the second at sunset. Hospitality is casual and universal. Anyone who is in the house when a meal is ready partakes as a matter of course.

[554] On all ordinary occasions the food is regularly served, not eaten from the pot. The woman of the house spreads a clean mat on the floor near the fireplace and everyone washes his hands and mouth. The woman then dishes out the rice and vegetable foods while the man divides and distributes the meat, if there is any. The husband's rice, and that of honored guests, is served separately, while the woman and children eat from a common dish. In most gentes it is customary to place the dish of the husband or guest on a small stand of basket-work, $1\frac{1}{2}$ to 2 inches high (Fig. 8, f, g, h). This symbolizes his elevation above the rest of the household.

[412] The rice is served first. When a mound of it has been piled on each dish, the woman flattens the top of it with the back of her rice ladle and pours on the other food. The salt and pimento mortars have been placed on the mat and each one seasons his own food with them. The head of the house is served first and no one else can begin eating until he has commenced. Each person has his own spoon and it is considered the height of ill manners to plunge the hands into the common dish. Foods which have to be eaten with the fingers, such as meat, are served separately. Simple forks, made from straight pieces of bone, are sometimes used.

The natives usually eat rapidly and almost in silence. When the food has been consumed, the hands and mouth are washed again and everyone relaxes. They loiter about and chat for a half hour or more. The woman gathers up the dishes and throws the scraps of food out of the door, to the chickens. Wooden utensils are washed after each meal and hung up to dry. Spoons, after washing, are placed in small openwork baskets (Fig. 13, f) or thrust through holes in a narrow strip of matting (Fig. 7, j). These spoon holders are usually hung from the center post of the house, above the fireplace. The cooking pots are rarely washed, this being considered a waste of time.

261 The natives have enormous appetites. A Tanala man will eat two to three times as much, by bulk, as a white laborer. They are

ECONOMIC LIFE

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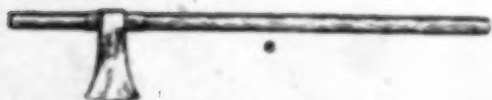
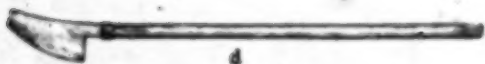


FIG. 10. Iron and Wood Working Tools. a, Piston Bellows; b, Details of Piston Head; c, Furnace for Iron Smelting; d, Axe, Ancient Type; e, Axe, Recently Introduced from Botaboo; i, Chisel; g, Small Gouge; h, Whetstone in Sheath; j, Carver's Gouge.

325 3 to 5 feet long with a bore of about 6 inches. The bore is much more constant than the length and rarely varies more than an inch. In each cylinder there is a piston with a long handle of light wood or bamboo and a round, flat wooden head only slightly smaller than the bore. A ring of cloth about an inch thick is loosely attached to the lower side of the head by means of cords passed through holes drilled around its rim (Fig. 10, b). On the up stroke the cloth ring falls away from the head, allowing the air to enter. On the down stroke the friction of the cylinder wall forces the ring upward against the head, closing the apertures and compressing the air below. In the side of each cylinder, at the bottom, there is a hole about an inch in diameter. A bamboo pipe 2 to 3 feet long is fitted into this and the joint sealed with cow dung. The two cylinders are cleated together in such a way that the bamboo pipes converge, forming a V. The apex of the V is inserted in a short conical tube of burned clay or soapstone, which conducts the air into the fire. The operator works the two pistons alternately, keeping up a steady draught.

325 All iron implements are forged, casting being unknown. The
412 metal from broken and worn-out tools is welded into bars and then worked up into new implements. The smiths' tools consist of two or three hammers of different sizes, an anvil, chisels, files, wooden tongs and a roughly hollowed trough of wood or stone to hold the water for tempering. The hammers are of iron with wooden handles and are shaped much like the European ones. One side of the head usually tapers to a sharp edge, used for cutting the hot metal. The anvil is also of iron, with a flat top not more than 3 inches square and a long wedge-shaped or pointed bottom. The lower part is sunk in the ground or driven into a log and the smith always squats at his work. The chisels are shaped like European cold chisels. All the files seen were of European manufacture and I suspect that this tool is an innovation. Perhaps pieces of rough sandstone were originally used. Tongs are made from sticks of green wood $1\frac{1}{2}$ to 2 inches in diameter and 3 to 5 feet long. The end of the stick is split back for 18 inches to 2 feet and it is then wrapped with withes or vines immediately above the split. Sometimes a loop of tough, green vine is used instead. This is slipped over the iron and the ends twisted about each other.

325 Tanala iron work is comparatively poor. Even their best implements are roughly finished. Their axes and knives are poorly tempered and require constant sharpening. Iron meat hooks and roasting forks are sometimes decorated by twisting the handles while

ECONOMIC LIFE

83

the metal is hot. Some knife and meat hook handles terminate in spiral antennae (Figs. 1, f; 5, g). Iron is never inlaid with other metals. 325
[531]

There are very few Tanala silversmiths, most of their ornaments being bought from the Betsileo. The ornaments are usually made from French five franc pieces and, at the time of my visit, the government had prohibited silver working as part of a campaign to introduce paper money. Because of this, the silversmiths carried on their work surreptitiously and I could learn nothing of their methods. 326
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WOOD WORKING

With the exception of the Zafimaniry gens, the Tanala are rather inferior wood workers. Their tools consist of the axe, chisel, knife, plane, drill, and two types of gouge. Adzes are unknown and saws were unknown until introduced by Europeans. They are still rarely used. 322
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The axe (*antsi*) is used both as a tool and as a weapon. All native men carry one when traveling. The blade is shaped like that of an American cleaver, flat, with a square end and a straight or slightly curved cutting edge 4 to 6 inches long (Fig. 10, d). It has a straight, horizontal tang about 8 inches long which is inserted in a straight wooden handle 18 inches to 2 feet long and about 1 inch in diameter. In mounting the blade the tang is heated red hot and used to burn a hole of the proper size in the end of the handle. When this is deep enough the tang is fixed in it with a strong vegetable cement, made from a berry. The handle is then reinforced about the tang with a metal ferrule or a band of rawhide taken from a cow's tail and slipped on wet.

Chisels are of solid iron and are shaped much like our own cold chisels. They are used for fine work in hollowing wooden utensils and in dressing joints in timbers (Fig. 10, f).

Planes are shaped much like the small planes used by our own carpenters (Fig. 11, f). The plane-iron tapers to a point, which is usually recurved. It is held in place by a wooden wedge. The Zafimaniry often use plane-irons with a fluted edge (Fig. 11, e), producing a corrugated surface. Planes are used for dressing house timbers and the outside of large wooden utensils, especially boxes.

Drills are identical with those already described under Fire Making except that they are fitted with chisel-shaped iron bits. They are rarely used in wood working, small perforations usually being made with a hot iron.

322 Large, heavy gouges are used for hollowing out large boxes and
412 canoes. The blade is provided with a socket by which it is fitted
on the end of a heavy, straight wooden handle, like a spade handle.
This gouge is swung with both hands, like the native spade. The
head of the gouge is usually carried in a rawhide sheath (Fig. 11, c).
Small gouges with curved blades are used for hollowing out spoons
and other small utensils (Fig. 10, g). They are sometimes provided
with a long handle which is gripped in the arm pit so that the blade is
held rigid while the utensil is pressed and turned against it.

All wood working tools are sharpened with whetstones, which
are carried on the belt in a hide sheath (Fig. 10, h).

313 The greater part of the Tanala territory is heavily forested, but
because of their wasteful agricultural methods large timber is becoming
scarce. It is often necessary to go several hours' march from a
village to find trees suitable for making large utensils, canoes, and
house timbers. In such cases the workmen build rude shelters at
the place and live there until the work is finished.

[192] It is considered wise to begin the felling of large trees on an
auspicious day. It is not obligatory, but if this is neglected there
may be accidents. If the trees selected are in a *zintana* ("place inhab-
ited by spirits") the workmen make a small sacrifice before the
felling begins and warn the spirits to go away so that they will not
be injured. The trees are felled with axes, never with fire, and are
cut off 2 to 3 feet above the ground. The Tanala apparently make
no use of wedges or other appliances for splitting the wood. Timbers,
utensils, etc., are hewn out bodily and brought to nearly their final
form on the spot, to save labor in transport. They are then carried
to the village to be finished at leisure. The Tanala never work
with seasoned wood if green wood is obtainable.

322 After objects have been roughed out with the axe and heavy
gouge they are dressed with planes and knives. If a very smooth
surface is desired, the object is gone over with a heavy iron rasp of
European manufacture, and the surface then rubbed down with a
slightly rough stone or with damp sand on a piece of hide. Final
smoothing is done with leaves. Wooden utensils are never polished
intentionally, although they may become glossy through use.

322 The Zafimaniry do a good deal of wood carving. Their carving
531 tools are knives and small chisels and gouges (Fig. 10, j), used without
mallets. There is no carving in the round. The designs are incised
after the surface has been rubbed smooth. Oval wooden boxes,
beds and the timbers and doors of houses are the objects most

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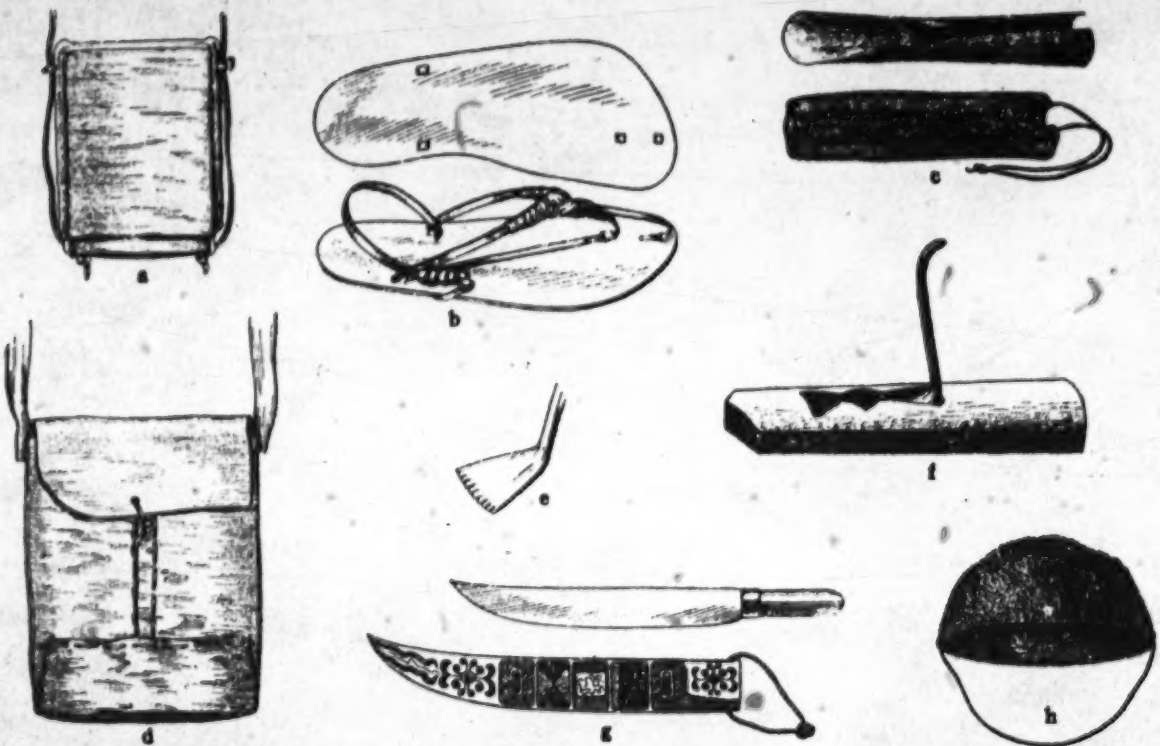


FIG. 11. Tools and Work in Hide. a, d, Hide Boxes; b, Sandals; c, Heavy Gouge with Sheath; e, Plane-iron; f, Plane; g, Knife and Sheath; h, Hide Cap.

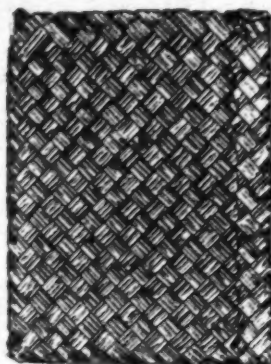
ECONOMIC LIFE

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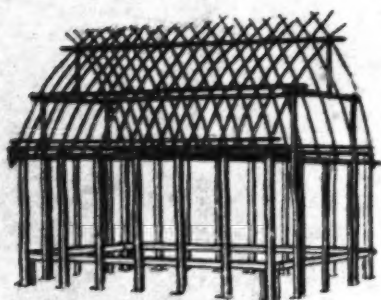
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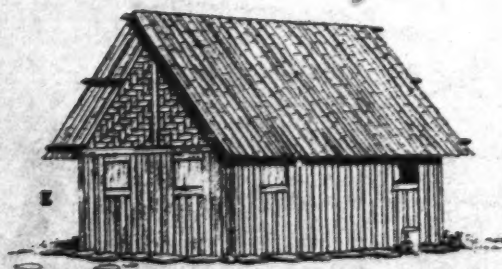
e



f



d



g

FIG. 18. Houses, etc. a, Bamboo Thatching Needle; b, Pins for Mat Lining of House; c, d, Dust Pan and Broom; e, Frame of Thatch House; f, Section of Wall of Wooden House; g, Wooden House, Zafimaniry.